

K.MUTHUKUMARAN

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Profile

To satisfy the customer by applying my technical and analytical skills for converging the ideas into victorious projects and to work for the organisation and myself.

Experience

MAS ROBTICS PVT LTD

19/06/2018-31/08/2018

Industrial robots

Understanding the working of industrial robots and applications regarding pick and place of objects and programming.

Education

ADAM

Advanced Diploma in Automotive Mechatronics.

RV College of Engineering ,Bengaluru, Karnataka

Under Graduation

Bachelor of Technology in Mechatronics Engineering

SRM University |6.6CGPA| 2014-2018|

Higher Secondary

Amalorpavam Higher Secondary School
84 | 2013-2014 |

SSLC

Amalorpavam Higher Secondary School

86 | 2011-2012 |

Outcomes of ADAM

Mechanical module

- Introduction about history of cars and modern technology involved in automobile .
- Safety precautions for handling tools, measuring instruments and special tools.
- Understanding the dismantling and assembling of major aggregates like modern engines and transmission etc.
- Understanding the working of modern engine management, drivetrains ,safety systems, comfort features.

Electrical module

- Introduction about working and function of voltage ,resistor ,multimeter, sensors and actuators
- Understanding the AC,DC,Digital electronics involved in automotive components .
- By using multimeters and clamp meters we can check the electrical components in car such as voltage, continuity, current.

System module

- Introduction about wiring diagram and Xentry Diagnosis for diagnosing the faults.
- Referring WIS (Workshop Information System) for in-depth knowledge of all the components and their working before actually diagnosing the faults.
- Understanding the basics of CAN bus and networking of control units.

Internship

- VST TITANIUM Motors Pvt Ltd (Mercedes Benz) 01/01/2019-16/01/2019
- VST TITANIUM Motors Pvt Ltd (Mercedes Benz). 28/04/2019-10/05/2019
Understanding the technical maintenance ,after sales department , diagnosing the faults in a car and assembly of car.
- Periodic maintenance includes; replacing engine oil, bleeding the brake fluid, replacing air filter, replacing dust filter, replacing transmission fluid, etc.

Some of the case studies were observed during ADAM Training

Customer Complaints	Technical diagnosis and approach
Engine not cranking	After studying the schematic and wiring diagram of the starter circuit and diagnosing on the car it was found that the voltage dip limiter was not sending the signal to the starter which prompted the fault.
Central locking malfunction with transmitter key	A loose connection at the signal amplifier which caused the fault.
Headlights always on, even when key is removed.	Short circuit in CAN communication to the headlamp unit.
Vehicle not starting	Physical observation is done and found that there is no signal in CAN High.By using isolation method found that CAN High and ground is short circuit.

Skills Acquired

- Dismantling and study of Engine and Automatic transmission.
- Identify and rectify various problems in an advanced vehicle system.
- Use of WIS (Workshop Information System).
- Learned team work, communication and leadership qualities by working in different groups for various faults introduced in the car.

- Use of special tools for overhauling of engine and transmission.

INDUSTRIAL VISIT

- Mercedes Benz India Pvt Ltd ,Chakan, Pune.
- Toyota Kirloskar Motor Pvt Ltd, Bidadi Industrial Area,Karnataka.
- Ponlait
- NLC India Ltd

Trainings and workshops

- Attend a one day automotive training at Advait Hyundai Motors ,Bengaluru.
- Attend a one day training on Maruti Suzuki Kalyani motors on various systems involved in car.
- CAN and Flex-Ray Technical Talk by Mr. Srikanth KS, Leading Software engineer in INTEL
- Attend a workshop on robotics and automation .

Academic Projects

- Design and Development of drawbot using image processing.
- Obstacle avoiding robot
- Line following robot

Skills

- Built in self confidence by handling seminars on classrooms through automotive concepts and taking feedbacks from trainers.
- Guitarist, Kalimba instrument player
- Video editor

References

Dr.Sridhar R
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